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**(19) (CA) APPLICATION FOR CANADIAN PATENT (12)**

**(54) Container for Holding Food Products**

**(72) Lang, Guenter - Germany (Federal Republic of) ;**

**(73) Same as inventor**

**(30) (DE) P 41 02 514.8 1991/01/29**

**(57) 6 Claims**

Notice: The specification contained herein as filed

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La03  
Cup

G. Lang

#### Summary

##### Container for holding food products

Container (1, 21) for holding liquid and/or solid food products at least during consumption, where the walls of the container (1, 21) consist of at least three layers made from a material that is edible and/or rots; it is particularly favourable if the outer layer (2, 22) is made from a comparatively strong, solid material, while the middle layer (3, 23) consists of a material that either does not harden or only hardens to a minimal extent and that is largely resistant to liquids.

Fig. 1

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Container for holding food products

The invention relates to a container for holding liquid and/or solid food products at least during consumption.

Numerous different ways to produce such containers for use on one occasion have already been proposed. These containers do, however, cause serious environmental problems, as they are either made of plastic or are at least sealed with plastic and plastic can generally only be disposed of by incineration.

The purpose of the invention is to propose containers of the kind outlined above that are simple to dispose of in an environmentally acceptable way.

In the solution to this problem proposed by the invention, the walls of the container consist of at least three layers made from a material that is edible and/or rots.

If the containers are consumed at the same time as or after the food product, no disposal problems arise at all. Since they rot, they do not harm the environment even if they do need to be disposed of.

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It is very advantageous if in accordance with the invention the outer layer is made from a comparatively strong, solid material, while the middle layer consists of a material that either does not harden or only hardens to a minimal extent and that is largely resistant to liquids.

The outer layer provides the necessary mechanical strength, while the intermediate layer carries out the sealing function. It is possible that the layer that comes into contact with the food product may start to be dissolved slightly by the food product; the middle layer is, however, protected sufficiently even by the partially dissolved layer so that it is not damaged or removed and can thus fulfil its sealing function to full effect.

It is also very advantageous if in accordance with the invention the inner layer consists of a solid material with good strength properties.

This makes it possible to use the containers as soup bowls and plates as well, since they are even sufficiently resistant to cutting as a result.

It has proved to be a very favourable structure for the container covered by the present invention when the outer and inner layers consist of a material containing flour, while the middle layer contains fat.

Possible materials containing flour are, for example, wafer or noodle dough, while the middle layer containing fat can be flavoured to suit the food product or can have a neutral taste.

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For use as a plate it is particularly advantageous if in accordance with the invention the inner layer is to a large extent resistant to cutting, at least in the base area.

Since the only function of the inner layer is otherwise to protect the middle layer, it can be made very thin. If mechanical stress is planned as well, however, - as is for example the case in the base area of a plate or a cup in which stirring is to be carried out - it has proved to be very advantageous to make the base area somewhat thicker and thus resistant to cutting.

In a further advantageous development of the invention the middle layer is made from a film that is edible and/or rots.

A wide range of different materials are conceivable here; the only imperative is that the film must at least rot easily. Films produced for example from starch or similar materials are, however, also available that are edible.

Two embodiments of the invention are illustrated in the drawings.

Fig. 1 is a cross-section of a cup for use in an automatic milk vending machine

Fig. 2 is a cross-section of a plate.

1 in Fig. 1 is a container in the form of a cup that consists of three layers 2, 3 and 4. In the embodiment shown, the outer layer 2 is made from wafer dough, which gives the cup 1 the necessary stiffness. The inner layer 4 is made on the other hand from a relatively hard noodle dough, which is to a large extent resistant at least to cold liquids, such as milk.

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The middle layer 3 is covered completely by this inner layer 4 and consists of a pasty, fatty substance which is not dissolved by any liquid that may penetrate through the inner layer and which thus effectively stops the liquid from reaching the outer layer. It is quite possible that the inner layer 4 may start to be dissolved and thus become soft, particularly when the liquid filled in the container remains in the cup 1 for a lengthy period of time; the inner layer nevertheless maintains its function as provider of mechanical protection for the middle layer 3, so that the latter is not subjected to any mechanical stresses and thus in turn continues to carry out its function as a protective layer for the outer layer.

A wide range of different materials can be used for the three layers. What have proved to be particularly effective are, however, materials containing flour for the outer and inner layers and a fatty substance that may harden to a greater or lesser extent for the middle layer.

In the embodiment illustrated in Fig. 2 the container is in the form of a plate 21, where both the outer layer 22 and the inner layer 24 are made from a relatively hard noodle dough, while the middle layer 23 consists of a fatty substance with a neutral taste. The inner layer 24 is relatively thin on the side walls of the plate, while it is thicker and very hard in the base area. As a result, this base area can also stand greater mechanical stresses, that occur, for example, when food products are cut.

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Cup

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### Claims

1. Container for holding liquid and/or solid food products at least during consumption, wherein the walls of the container (1, 21) consist of at least three layers made from a material that is edible and/or rots.
2. Container according to claim 1, wherein the outer layer (2, 22) is made from a comparatively strong, solid material, while the middle layer (3, 23) consists of a material that either does not harden or only hardens to a minimal extent and that is largely resistant to liquids.
3. Container according to claim 1 or 2, wherein the inner layer (4, 24) consists of a solid material with good strength properties.
4. Container according to one of the previous claims, wherein the outer and inner layers (2, 4, 22, 24) consist of a material containing flour, while the middle layer (3, 23) contains fat.
5. Container according to one of the previous claims, wherein the inner layer (4, 24) is to a large extent resistant to cutting, at least in the base area.
6. Container according to claim 1, wherein the middle layer (3, 23) is made from a film that is edible and/or rots.

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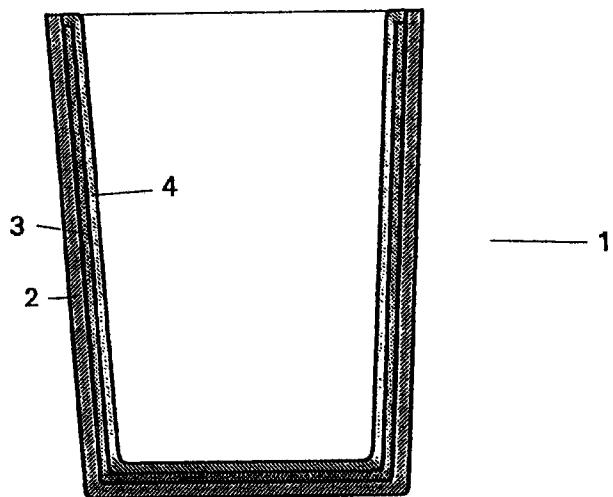


Fig. 1

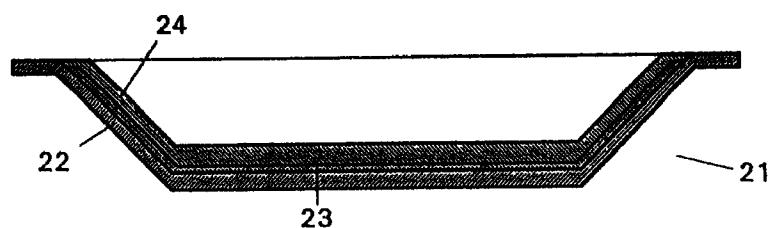
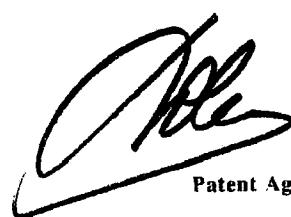


Fig. 2



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